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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/441,627 | 11/16/1999 | BRIAN E. WILLIAMS | S324-J | 4715 |

7590 01/14/2004

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EXAMINER

ZIMMERMAN, JOHN J

| | |
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| ART UNIT | PAPER NUMBER |
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1775

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

2017

Office Action Summary

Application No.

09/441,627

Applicant(s)

WILLIAMS ET AL.

Examiner

John J. Zimmerman

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,7-10,13 and 14 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 is/are allowed.
- 6) ☒ Claim(s) 1-3,6,12,15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

OFFICE ACTION

Amendment

1. This Office Action is in response to applicant's correspondence titled "Amendment" received October 27, 2003. Claims 1-17 are pending in this application and elected claims 1-3, 6 and 11-12 are currently being prosecuted.

Restriction Requirement

2. Applicant's election of Group I, Species 2 (claims 6 and 11), in the Response received December 13, 2001 was noted in the previous Office Actions. In view of the election, generic claims 1-3, 12 and 15-16 (claims drawn to no specific compositions) and species claims 6, 11 and 17 (drawn specifically to ceramics) have been examined in this prosecution. Claims 4-5, 7-10 and 13-14 have been withdrawn from consideration at this time as being drawn to non-elected inventions. At this time the generic claims have not been held to be allowable (see the rejections, below) and the restriction was made Final in the prior Office Actions.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. It is not clear where the original disclosure provides support for "inorganic polymers" (e.g. claim 3, line 3).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6, 12 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese publication 63-2873.

7. Japanese publication 63-2873 discloses a formed in situ (plasma sprayed) continuous skin bonded directly to a ceramic foam substrate (e.g. see Figures 1a and 1b). The ceramic skins of the references appear to penetrate the ceramic foam at a depth of less than about 5 pore diameters. The ceramic skins of the references appear to penetrate the ceramic foam at a depth of less than about 2 pore diameters. Regarding the claim limitation that the skin must have "interconnected porosity", the reference clearly shows that the skin has porosity in Figure 2, top

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graph, and there is no reason to believe that gas would not be able to flow through such a porous skin. In any event, Japanese publication 63-2873 discloses that the porous ceramic foams have functions such as separation, filtering and catalysts carriers. It would be expected by one of ordinary skill in the art that such foamed ceramics would have an interconnected porosity since closed celled ceramic foams would not be applicable to these disclosed functions. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Allowable Subject Matter

8. Claim 17 is allowed.

Response to Arguments

9. Applicant's arguments and amendments to the claims filed October 27, 2003 have been carefully considered, but are not convincing. Applicant argues that Japanese publication 63-2873 discloses a heat shield and therefore it the ceramic foam of the publication would not be expected to have interconnected porosity. Applicant's arguments fail to note that Japanese publication 63-2873 discloses that such porous ceramics have functions such as separation,

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filtering and catalysts carriers. It would be expected that such foamed ceramics would have an interconnected porosity since closed celled ceramic foams would not be applicable to these disclosed functions. A translation of the Japanese document is being provided with this Office Action for applicant's benefit.

Conclusion

10. Applicant's amendment adding "inorganic polymers" to claim 3 necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571)-272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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A handwritten signature in black ink, appearing to read 'JJZ', is positioned above the printed name.

John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
January 8, 2004